

SAF-RC-001

Industrial Hygiene Sampling

FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG

06I-0477-01

SAF-RC-001

Rad only

X

Chem only

Rad & Chem

X Complete

Partial

300 Area 334 Bldg

RECEIVED

MAR 29 2006

EDMC



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Report Identification Number: 06I-0477-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R33400J452
Payroll#: 72947



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
01 Feb 2006	J11333	06I03803	NMAM 7300M	G0616021	MCE
01 Feb 2006	J11320	06I03804	NMAM 7300M	G0616021	MCE
01 Feb 2006	J11321	06I03805	NMAM 7300M	G0616021	MCE
01 Feb 2006	J10YF5	06I03806	NMAM 7300M	G0616021	MCE
01 Feb 2006	J10YF3	06I03807	NMAM 7300M	G0616021	MCE
01 Feb 2006	J10YF4	06I03808	NMAM 7300M	G0616021	MCE

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Name: Lisa M. Reid
Title: Chemist
Date: February 09, 2006

Report Identification Number: 06I-0477-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
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General Set Information: There are 6 samples in set 06I-0477-01, 6 samples in set 06I-0478-01, 3 samples in set 06I-0479-01 and 8 samples in set 06I-0480-01 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 1. ug/sample.

Method Blank Analysis: No lead was found in the media blank sample above the Limit of Quantitation (LOQ). Beryllium results in the media blanks were as follows: BL-241019-1 is 0.021 ug/sample, BL-241019-2 is 0.37 ug/sample. Cadmium results in the media blanks were as follows: BL-241019-1 is ND, BL-241019-02 is 0.084 ug/sample.

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

Replicate Analysis: Three samples were replicated with this analysis run. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation
= Final Volume of Digestate (L)

Sample

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: None.

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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

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Payroll#: 72947

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J11333	06I03803	07 Feb 2006	<0.02	U	<0.043	U	466.	
J11320	06I03804	07 Feb 2006	<0.02	U	<0.0077	U	2589.	
J11321	06I03805	07 Feb 2006	<0.02	U	<0.0078	U	2569.	
J10YF5	06I03806	07 Feb 2006	0.027		0.047		563.	
J10YF3	06I03807	07 Feb 2006	<0.02	U	**		0.000	
J10YF4	06I03808	07 Feb 2006	<0.02	U	**		0.000	
Limit of Detection (LOD)			0.02					
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead $\mu\text{g}/\text{sample}$		Lead $\mu\text{g}/\text{m}^3$		Cadmium $\mu\text{g}/\text{sample}$	
J11333	06I03803	07 Feb 2006	<0.1	U	<0.21	U	<0.06	U
J11320	06I03804	07 Feb 2006	<0.1	U	<0.039	U	<0.06	U
J11321	06I03805	07 Feb 2006	<0.1	U	<0.039	U	<0.06	U
J10YF5	06I03806	07 Feb 2006	0.10		0.18		<0.06	U
J10YF3	06I03807	07 Feb 2006	0.13		**		<0.06	U
J10YF4	06I03808	07 Feb 2006	<0.1	U	**		<0.06	U
Limit of Detection (LOD)			0.1				0.06	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J11333	06I03803	07 Feb 2006	<0.13	U
J11320	06I03804	07 Feb 2006	<0.023	U
J11321	06I03805	07 Feb 2006	<0.023	U
J10YF5	06I03806	07 Feb 2006	<0.11	U
J10YF3	06I03807	07 Feb 2006	**	
J10YF4	06I03808	07 Feb 2006	**	



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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$
Limit of Detection (LOD)			
Required Detection Limit (RDL)			

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
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Payroll#: 72947

Batch ID: G0616021

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241019-1	MB	Beryllium	µg/sample	0.021	NA	NA	NA	NA
BL-241019-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241019-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241019-1	LCS	Beryllium	µg/sample	10.5	NA	10.0	105.	NA
QC-241019-1	LCS	Lead	µg/sample	101.	NA	100.	101.	NA
QC-241019-1	LCS	Cadmium	µg/sample	30.9	NA	30.0	103.	NA
QD-241019-1	LCSD	Beryllium	µg/sample	10.8	10.5	10.0	108.	2.71
QD-241019-1	LCSD	Lead	µg/sample	104.	101.	100.	104.	2.57
QD-241019-1	LCSD	Cadmium	µg/sample	31.6	30.9	30.0	105.	2.44
BL-241019-2	MB	Beryllium	µg/sample	0.037	NA	NA	NA	NA
BL-241019-2	MB	Lead	µg/sample	0.30	NA	NA	NA	NA
BL-241019-2	MB	Cadmium	µg/sample	0.084	NA	NA	NA	NA
QD-241019-2	LCSD	Beryllium	µg/sample	10.9	10.9	10.0	109.	0.525
QD-241019-2	LCSD	Lead	µg/sample	106.	107.	100.	106.	0.799
QD-241019-2	LCSD	Cadmium	µg/sample	32.3	32.6	30.0	108.	0.945
QC-241019-2	LCS	Beryllium	µg/sample	10.9	NA	10.0	109.	NA
QC-241019-2	LCS	Lead	µg/sample	107.	NA	100.	107.	NA
QC-241019-2	LCS	Cadmium	µg/sample	32.6	NA	30.0	109.	NA

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$$\text{LCS, LCSD Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$$



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MS, MSD Percent Rec. = $((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

LCS, LCSD Relative Percent Diff. = $((|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0)) * 100.$

MS, MSD Relative Percent Diff. = $((|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0)) * 100.$

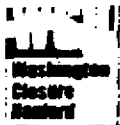
LD Relative Percent Diff. = $((|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0)) * 100$

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST															
Collector: T. Wester		Company Contact Dennis A. Peto and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator Joan H. Kessner		Data Turnaround 3 day							
Payroll #: 72947		Sampling Location 200 area B24		SPECIAL INSTRUCTIONS All relevant COAs must be provided: R234000452		SAF No. RC-001									
Type of Sample: BelPblcd air		Wipe Sample Media: Glass <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Other		ANALYSIS METHOD (SPECIFIC): N105H 7300-BelPblcd		Method of Shipment Fed Ex									
Shipped To: DataChem Salt Lake City, UT		POSSIBLE SAMPLE HAZARD MARKS BelPblcd		Preservation (i.e., cooling required, etc.)		Bill of Lading/Air Bill No. 8544 9435 4737									
Special Handling and/or Storage na		MATRIX A - AIR W1 - WIPE X - OTHER													
SAMPLE ANALYSIS															
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (sq ft)	Comments	No	No	No	No	No						
J11333	a	21104	406	na	ad	X	X	X	X						
J11320			2589	na	ad	X	X	X	X						
J11321			2569	na	ad	X	X	X	X						
J10NF5			563	na	ad	X	X	X	X						
J10NF3	↓	↓	na	blank	ad	X	X	X	X						
J10NF4	a	21104	na	blank	ad	X	X	X	X						
		ad			ad	X	X	X	X						
		21106			ad	X	X	X	X						

[illegible]

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(SINCE 2007) 202-45-1111



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: T. Wester	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround 3 day
Payroll #: 72947	Sampling Location 300 area 834	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R334000452	SAF No. RC-001	
Type of Sample: BelPblcd air		ANALYSIS METHOD (SPECIFIC): NIOSH 7300-BelPblcd	Method of Shipment Fed Ex	
Shipped To: Darachem Salt Lake City, UT	Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other _____		Bill of Lading/Air Bill No. 8544 9435 4737	

POSSIBLE SAMPLE HAZARD/RI MARKS BelPblcd	MATRIX A - AIR WI - WIPE X - OTHER	Preservation (i.e., cooling required, etc.)	No	No	No	No	No	No	No	No	No
Special Handling and/or Storage na											

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne	
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area <u> </u> <u>cm²</u>	Comments									
J11333	a	2/1/04	466	na	aw	X	X					X	
J11320			2589	na	2/1/04	X	X			aw		X	2/1/04
J11321			2569	na		X	X		2/1/04			X	
J104F5			563	na		X	X					X	
J104F3	↓	✓	na	blank		X	X					X	
J104F4	a	2/1/04	na	blank		X	X					X	
		aw											
	2/1/04												

COPY

FIELD SAMPLE COPY

Enter on line below the first Sample Number from Page One:

J11333

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
<i>WR Jester</i>	<i>2/1/06 1630</i>	<i>locked drawer, RM 116, Bldg 3746</i>	<i>2/1/06 1630</i>
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
<i>locked cabinet bldg 3746 Rm 116</i>			
<i>Goldie Malhan</i>	<i>02-06-06 / 1500</i>	<i>RZ Steffler</i>	<i>R.Z. Steffler 2-6-06 / 1500</i>
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
<i>RZ Steffler</i>	<i>2-6-06 / 1600</i>	<i>Fed Ex</i>	
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
Requisitioned By/Store	DATE / TIME	Received By/Store	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____
 PRINT/SIGN NAME